1 Connect the Controller

Connect an Ethernet cable from the computer to the front port of the controller.

Configure the computer with a static IP address (e.g., 10.10.10.202) and a subnet (e.g., 255.255.255.0).

Verify that the LCD front port IP address (factory default 10.10.10.201) matches the computer address (e.g., 10.10.10.202).

Enter the controller IP address into a web browser.

On the web login page enter the, **User Name**: admin, and **Password**: admin.

Either the last page visited or controller main dashboard displays.

2 Set up Users and Permissions*

Go to **Controller> Configure Controller> Users and Security**

In the **Users and Security** table, click more details icon on the admin line.

Edit the **Description** and click **Save**.

Edit the **Alias** and click **Save**.

Set the **User Role** (permissions) and click **Save**.

From the admin table, click **Change User Password**, and then click **Save**.

* Up to seven user accounts: one administrator, one account manager and five operators (which includes the guest option).

3a Create a DC System

Create a New DC System:

Go to **Controller> Inventory**, and click Create DC System wizard

Use the Configure DC System wizard to configure the system. The Results page provides information on what else needs to be done to ensure the system functions as expected.

Green Line = item was configured correctly

Blue Line = action must be taken - Configure Shunt and Disconnect

Gray Lines = actions recommended - Confirm Load and Battery String settings

NOTE: Systems are created via the **Controller> Inventory** menu. Each system type has a wizard to help guide you through the process of system creation.

OR

3b Import a DC system from a Config File (LCD only)

Import a New System From a Config File:

Go to **Menu> Controller> Advanced Functions> Configuration File**

Select the Import.

Select the File for the new system and upload.

When the status shows a check mark, the upload is complete.

When creating a new system from a config file; run replace ADIO. If the settings are configured to an ADIO not physically installed, see the note below.

Note:

If the imported config file includes one or more ADIO devices, they are created but it is necessary to perform a manual replace ADIO to preserve and transfer input and relay mappings. Importing a configuration depends on the type of config file. If the file was created with:

- **Export Controller Clone** - or on a controller with 3.31 or previous, all existing configuration is deleted and replaced with the configuration in the file.
- **Export System or ADIO** - the system and or ADIO in the file is added to the controller (only one DC system and one Converter system is supported).
- **Export Partial** - If a file is created with Export Partial, then the configuration in the file can modify or add to existing configuration, depending on what was exported.

4 Create a User Alarm

Go to **Controller> Advanced Functions> User Alarms**

Select the type: either **Add Digital User Alarm** or **Threshold User Alarm**.

Click the more details icon.

Two tables display that show fields to configure the alarms.

IMPORTANT - Give the alarm a descriptive name because same alarm types have the same default name (user alarms are not linked to systems).

Select the alarm input source**

Set the priority and relay. To set an SNMP trap severity value, use the Parameter 1 field.

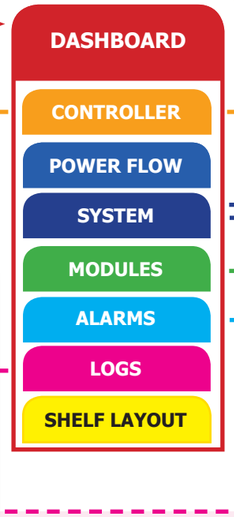
Complete if configuring a digital alarm.

For a threshold alarm, select the type from the Alarm When Value field.

Above = high threshold alarm; Below = low threshold alarm

Set the threshold. Set a hysteresis value. Ensure the hysteresis is large enough to avoid nuisance alarms. Ensure that new alarm operates as expected by testing it.

** Threshold alarms allow you to select from ADIO voltage and temperature inputs, current readings from shunts or current transducers and any status count data about rectifiers or converters. Digital alarms allow you to select custom data or digital inputs on any ADIO device.



Replace a Rectifier

Remove the rectifier from the shelf.

Press **Forget Power Modules in Comms Lost** via the **Maintenance** menu (LCD) or go to **Modules** (web).

Secure the new rectifier in the shelf - modules are automatically acquired.

Go to **Shortcuts> Inventory Summary>Rectifiers** (LCD) or **Modules> Rectifiers** (web) to verify the new module is acquired.

If not acquired, ensure the **Rectifier Assignment** rule is set to **Automatic**, via **Power System> DC System>Configure System> System Properties**.

You can also assign the rectifier manually via the LCD or the web at **System> DC System> Inventory> Rectifiers> Status**.

Note: If the rectifier was previously forgotten; it will not auto-assign and must be added manually as descried above.

Replace an ADIO

Replace the physical ADIO device.

Note the serial number of the old and new ADIO.

Go to Maintenance menu (LCD) or Modules (web)

Run the **Replace ADIO** wizard and follow the instructions.

The new ADIO inherits all the mappings and configuration from the old ADIO.

From the **Modules** menu, verify the ADIO.

LCD Shortcuts Menu

- Ethernet - display or update network settings
- Inventory Summary - links to major system elements
- Dashboard Config - change LCD to display a single or dual panel
- Language - edits the default language for both web and LCD
- Browse USB - review the files on a USB drive
- Export Diag. Info. - exports an information package needed for support
- Backup - writes a backup file to a USB drive (OS, app and config)

- Restore - uploads a backup file from a USB drive
- Clock - set, synchronize and view time settings
- Speaker - turn alarm chime on or off
- Display - recalibrate the touchscreen
- Reset - restarts the controller

Set Time and Date

Go to **Controller> Configure Controller> Time and Date**.

Click the edit icon for current Time and Date. Click the edit icon for the time zone. Set the time zone.

Set the current date and time.

Set the Network Time Server Address (if needed). Simple Network Time Protocol (SNTP) synchronizes the time of the controller and devices to local time based on the time-zone setting.

If required, the Network Time server address can be disabled, click the edit icon and clear the field, then click save.

Logs

The controller has four types of Logs:

Events and Alerts - Events can be viewed via the web (up to 300) or LCD (up to 25) or exported as .CSV (up to 3000). The Alerts reference individual modules.

Battery - Records discharge/charge, duration, changes in capacity, state of charge, and state of health, etc.

Datalogs - Records system measurements as data signals over a period of time - up to 10 datalogs each with up to 20 data signals.

Performance - Provides a live graphic display of key system usage statistics; exported logs contain up to one-years' worth of information

Alarms

Access the Alarms menu from the dashboard. Each alarm option provides a table with sort, search and filter features.

- **Active Alarms** - provides tables to view a full list of active alarms, detailed information on each alarm, and an alarm cutoff (ALCO) button.
- **Alarm Cut-Off and Global Settings** - provides alarm cut-off functionality and configuration
- **All Alarm Settings** - provides a table to view and configure all possible alarms including relay mapping to alarms.

To create a custom alarm, see **Create a User Alarm** (see number 4) .

Backup and Restore (LCD only)

Go to **Shortcuts**.

To Backup: Insert a USB drive into the controller

Click Backup to save a back up file of the system settings and application. The previous backup is over written with the new file.

To Restore: Insert a USB drive into the controller.

Scroll to required back up file.

Click restore to overwrite the previous settings and application with chosen file.

Set Up Communication

The controller provides options for the following:

- SNMP - enable and configure SNMP or SNMPv3, download MIBs, set SNMP destinations and send test notifications
- Modbus - enable and configure the Modbus agent, set the byte order and device ID. After enabling Modbus the controller may require a soft reset.
- Email - enable and configure SMTP, email destinations and send a test email.

To set up SNMP, Modbus or email:

Go to **Controller> Configure Controller> Communications**

Create a Log

Three stages: Add a Datalog, Add Data Signals, run the Start Capture.

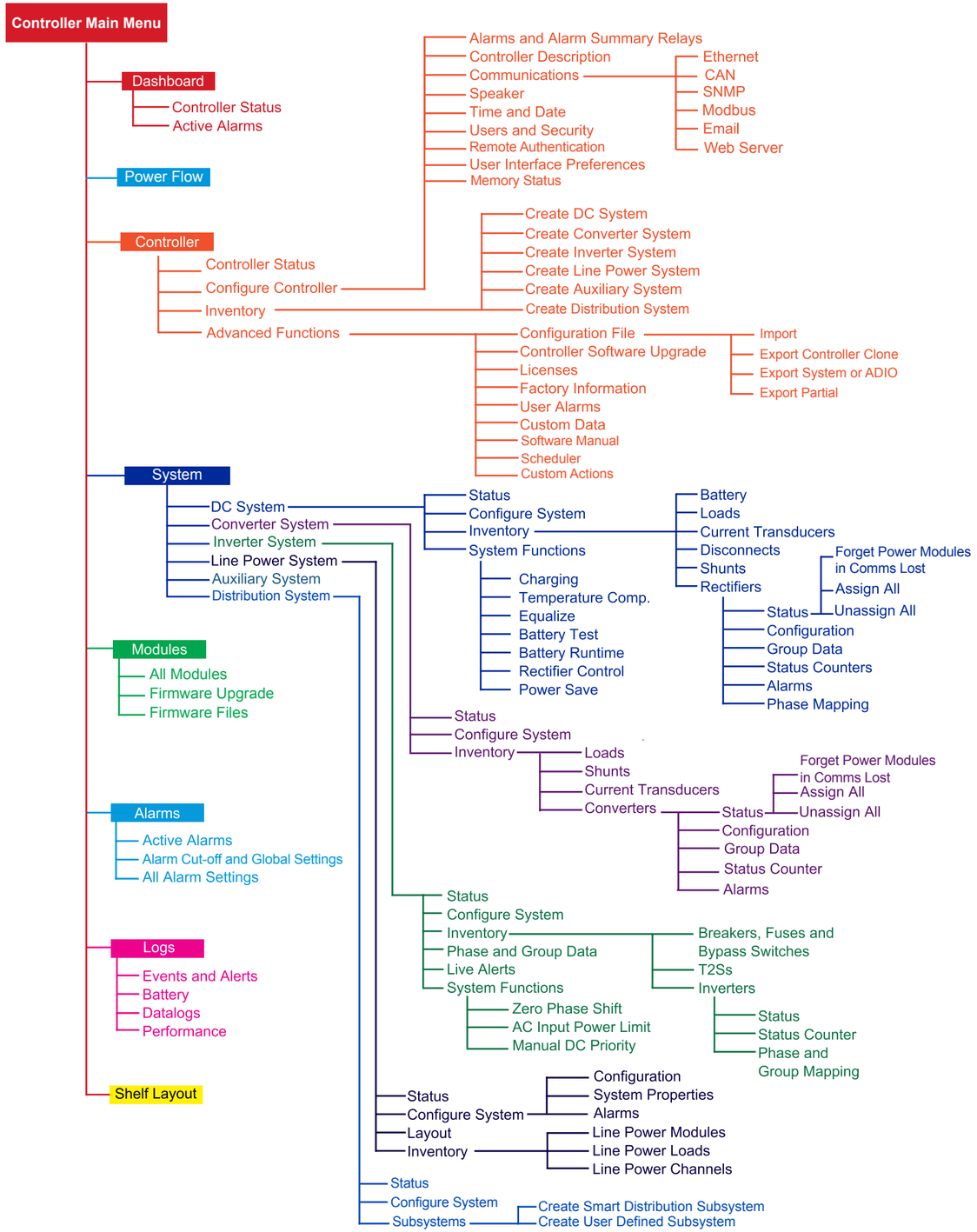
Go to **Logs> Datalogs**, and click **Add Datalog**.

In the Configuration table click the edit icon to set up datalog parameters.

In the Data Signals table, click Add Data Signal (up to 20 per Datalog). Give each signal a Name, Description, and then use the field picker to select the ADIO input or other value to be monitored.

Click the **Start Capture** button.

Note: For the Datalog to run, all data fields must be filled in. You cannot select state or boolean values for a data signal.



CXC HP Controller Quickstart

Introduction

This QuickStart Guide is intended to help users quickly connect the controller, set up users and permissions, set the date and time, set up and configure a system, SNMP, email, create alarms, datalogs, replace an ADIO as well as backup and restore. The back cover of this guide provides a full map of all the controller menus. For detailed information advanced product use, go to alpha.ca to download any associated manuals.

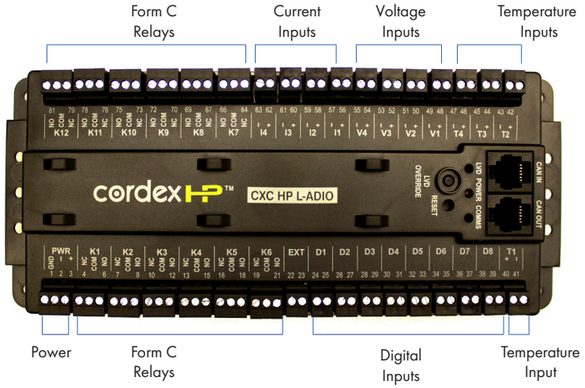
Modules Inventory and System Functions

A module is a device that communicates information. Modules will be CAN devices such as rectifiers, converters and ADIOs. Power system inventory are items that are directly involved in the flow of power through the system.

For example, a rectifier is an inventory item but a controller or an ADIO is not. Other examples of system inventory are: rectifier, load, battery, disconnect, shunt, current transducer, and inverter breaker. The system functions are the major features of the system such as: charging, battery runtime and health estimation, rectifier control and monitoring and temperature compensation. Once inventory is in place you can configure and test system functions to ensure that it is working as intended.

CXC HP Controller

L-ADIO



Dashboard Features

The dashboard is the default view on both LCD and the web. You can work with the system directly from this area. It provides an up-to-date overview of the most critical system information.

Alarm Notifications

- Last active alarm based on priority
- Red for critical or major
- Amber for minor
- Blue for warnings

System Status Summary

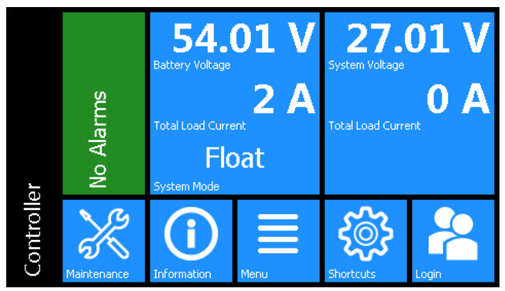
- Battery voltage
- Total load current
- Total output power
- System type - DC, Line Power, Inverter, Converter

Controller Status

- OS version
- Software version
- Hardware version
- Device ID
- Current date and time

LCD Touchscreen Dashboard View

Active Alarms color coded alarms based on severity



System Status Single or dual panel options: system signals and system mode (DC and converter systems shown)

Maintenance Functions such as, alarm cutoff , replace ADIO, etc.

Information Serial number software and OS version

Menu Access all controller menus

Shortcuts access to most used menus *

Login or Logout

** Description and view of the Shortcuts menus inside*

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